

REMARKS

Claims 4, 6, 7-12, 18-21 are currently pending in the subject application and are presently under consideration. Claim 4 has been amended as shown on pp. 2-5 of the Reply. Claims 7 and 8 have been canceled.

Favorable reconsideration of the subject patent application is respectfully requested in view of the comments and amendments herein.

I. Double Patenting Rejection of Claims 1, 6, 18 and 19

Claims 1, 6, 18 and 19 are rejected on the ground of non-statutory obviousness-type double patenting as being unpatentable over claims 1-9 of U.S. Patent No. 7,080,150. Although the conflicting claims are not identical, they are not patentably distinct from each other because both disclose a communication network with two protocols, wherein the first protocol is to enable the I/O module and the second protocol is to provided the communications to the I/O module. A terminal disclaimer in compliance with 37 C.F.R. §1.321(c) is submitted with this Reply, as such this rejection is moot and should be withdrawn.

II. Rejection of Claims 4, 7 and 18-21 Under 35 U.S.C. §102(e)

Claims 4, 7 and 18-21 stand rejected under 35 U.S.C. §102(e) as being anticipated by Crump *et al.* (US Patent 6,484,206). It is respectfully submitted that this rejection should be withdrawn for the following reasons. Crump *et al.* does not teach each and every element of the claimed subject matter as recited in the subject claims.

A single prior art reference anticipates a patent claim only if it expressly or inherently describes ***each and every limitation*** set forth in the patent claim. *Trintec Industries, Inc. v. Top-U.S.A. Corp.*, 295 F.3d 1292, 63 USPQ2d 1597 (Fed. Cir. 2002); *See Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). ***The identical invention must be shown in as complete detail as is contained in the ... claim.*** *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989). (emphasis added).

The claimed subject matter provides a PointBus architecture and addressing protocol to enable systems to be grouped according to more precise I/O requirements and to enable systems to be incrementally expanded without substantially increasing system costs. For example, a

system may initially include a grouping of associated I/O modules. An additional I/O module may be added to, and automatically become part of the initial grouping merely by being placed in relation to the existing module set (*e.g.*, to the right of the existing set) and becoming operatively coupled thereto.

In particular, independent claim 4 recites an adaptable control system for providing network communications, comprising: *a physical media for providing communications to at least one I/O module, the physical media includes a first protocol and a second protocol, the first protocol to enable the at least one I/O module to receive the network communications and the second protocol to provide the network communications to the at least one enabled I/O module; and the at least one I/O module enables at least one other I/O module to form an I/O group via the first protocol; and an interface for providing a pass-thru for the network communications, the interface provides a DC/DC converter for supplying I/O power and enabling the at least one other I/O module.* Crump *et al.* does not teach or suggest the aforementioned novel aspects of applicants' claimed subject matter.

Crump *et al.* teaches a system for recovering multiple connections in a communication network. The system includes a translating function that detects a connection failure affecting multiple clients, selects one of the number of affected clients, repeatedly attempts to re-establish the failed connection between the selected client and the server until the connection is successfully re-established, and then re-establishes the connections for the remaining clients. (*See col. 2, lines 11-25*).

In contrast, applicants' claimed subject matter provides an adaptable control system that comprises an interface. The interface essentially performs a pass-thru of the network and further provides an economical interface. For example, the interface may operate as a DeviceNet physical media converter. DeviceNet (*e.g.*, round wire media) may be connected to a side of the interface and PointBus connections are made on the other side. A DC/DC converter is provided to produce 5 volts for the I/O modules. The interface may also include a power monitor function (within the DC/DC converter) and a power protection function along with the DC/DC converter.

I/O modules may be addressed by the interface similar to DeviceNet modules. A master may assign each of the modules an address and provide configuration data. If each module is 'new', then the interface will enable the first module. The first module may then broadcast its Duplicate

MAC ID message and wait for the message to be changed before enabling a neighbor module. (See pg. 10, line 17-pg. 11, line 15).

Crump *et al.* does not disclose an interface for providing a pass-thru for the network communications and a DC/DC converter for supplying I/O power. As such, the Examiner merely objected to claim 8 as being dependent upon a rejected based claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. (See Office Action dated 8-30-06, pg. 6). Thus, claims 7 and 8 have been incorporated into independent claim 4. Accordingly, Crump *et al.* is silent regarding an adaptable control system for providing network communications, comprising: ***...an interface for providing a pass-thru for the network communications, the interface provides a DC/DC converter for supplying I/O power and enabling the at least one other I/O module.***

Accordingly, Crump *et al.* fails to teach or suggest all limitations of applicants' claimed subject matter as recited in independent claim 4 (and claims 7 and 18-21 that depend there from), and thus fails to anticipate the claimed subject matter. Consequently, this rejection should be withdrawn.

III. Rejection of Claims 6, 9, 10 and 12 Under 35 U.S.C. §103(a)

Claims 6, 9, 10 and 12 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Crump *et al.* (US Patent 6,484,206). It is respectfully submitted that this rejection should be withdrawn for the following reasons. Crump *et al.* does not teach or suggest each and every element set forth in the subject claims. In particular, Crump *et al.* does not make up for the aforementioned deficiencies discussed above with respect to independent claim 4 (which claims 6, 9, 10 and 12 depend there from). Thus, the claimed subject matter as recited in claims 6, 9, 10 and 12 is not obvious over Crump *et al.* and withdrawal of this rejection is requested.

IV. Rejection of Claim 11 Under 35 U.S.C. §103(a)

Claim 11 stands rejected under 35 U.S.C. §103(a) as being unpatentable over Crump *et al.* (US Patent 6,052,382) in view of Burke *et al.* (US Patent 6,052,382). It is respectfully submitted that this rejection should be withdrawn for the following reasons. Crump *et al.* and Burke *et al.*, individually or in combination, do not teach or suggest each and every element set forth in the subject claims. In particular, Burke *et al.* does not make up for the aforementioned

deficiencies of Crump *et al.* with respect to independent claim 4 (which claim 11 depends there from). Thus, the claimed subject matter as recited in claim 11 is not obvious over the combination of Crump *et al.* and Burke *et al.*, and withdrawal of this rejection is requested.

CONCLUSION

The present application is believed to be in condition for allowance in view of the above comments and amendments. A prompt action to such end is earnestly solicited.

In the event any fees are due in connection with this document, the Commissioner is authorized to charge those fees to Deposit Account No. 50-1063 [ALBRP180US].

Should the Examiner believe a telephone interview would be helpful to expedite favorable prosecution, the Examiner is invited to contact applicants' undersigned representative at the telephone number below.

Respectfully submitted,

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